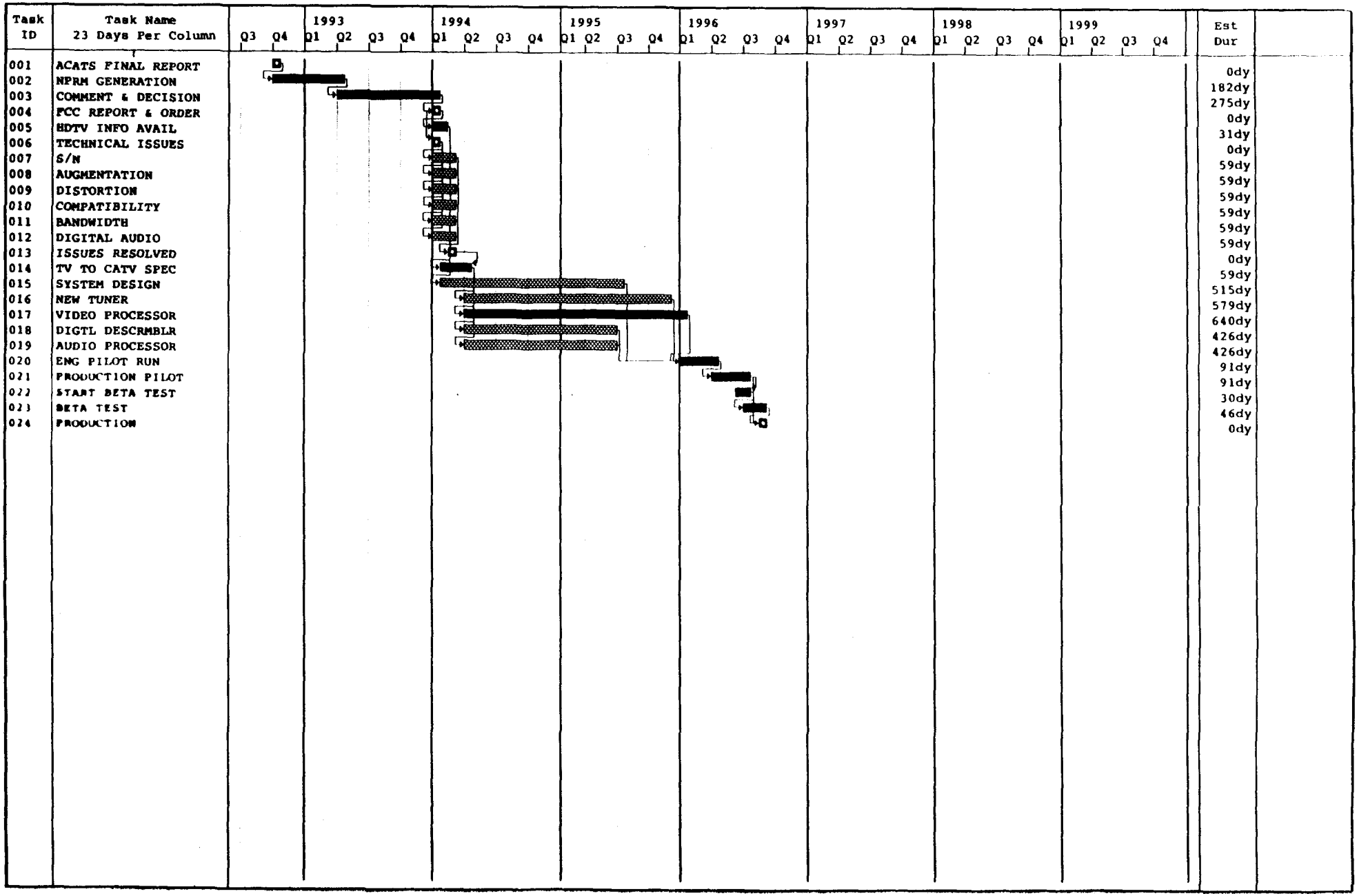
Task Outline
01-01-92 12:22a

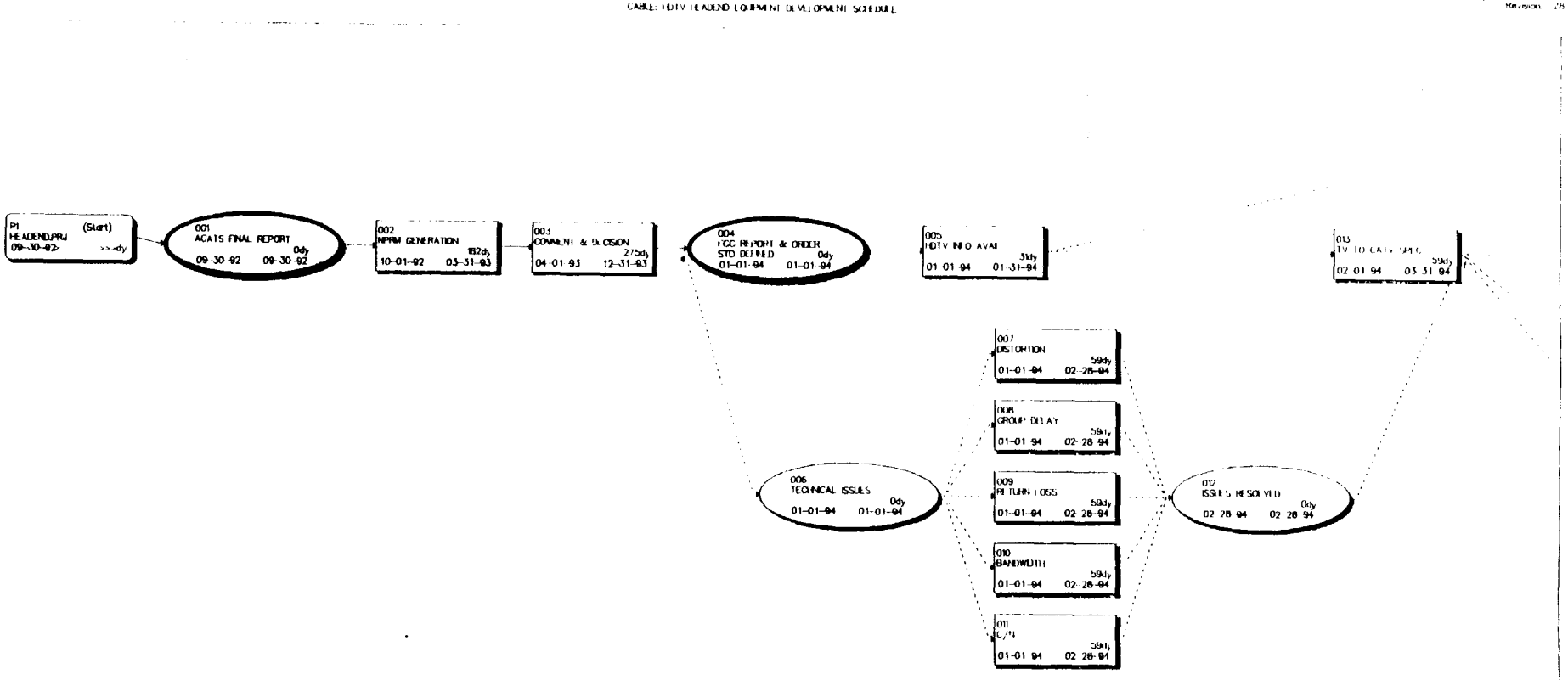
Project: CONVERT.PRJ
Revision: 17

CABLE: HDTV CONVERTER DEVELOPMENT SCHEDULE



PERT Chart
01-02-92 11:24a

CABLE: HDTV HEADEND EQUIPMENT DEVELOPMENT SCHEDULE



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CABLE TDTV HEADEND EQUIPMENT DEVELOPMENT SCHEDULE

014
SYSTEM STUDIES
518dy
02-01-94 06-30-96

016
NEW MODULATOR
736dy
04-01-94 03-31-96

015
SATELLITE RECVR
365dy
04-01-94 03-31-95

019
SATELLITE P-TYPE
366dy
04-01-95 03-31-96

020
PILOT PRODUCTION
366dy
04-01-95 03-31-96

017
NEW PROCESSOR
640dy
04-01-94 12-31-95

018
NEW DEMODULATOR
518dy
04-01-94 06-31-96

021
BETA TEST
183dy
04-01-96 09-30-96

022
BETA TEST
92dy
10-01-96 12-31-96

023
QUALIFICATION
366dy
04-01-95 03-31-96

024
PRE-PRODUCTION
92dy
10-01-96 12-31-96

025
PRODUCTION
0dy
12-31-96 12-31-96

P1
HEADEND/PRJ
12-31-96
(End)
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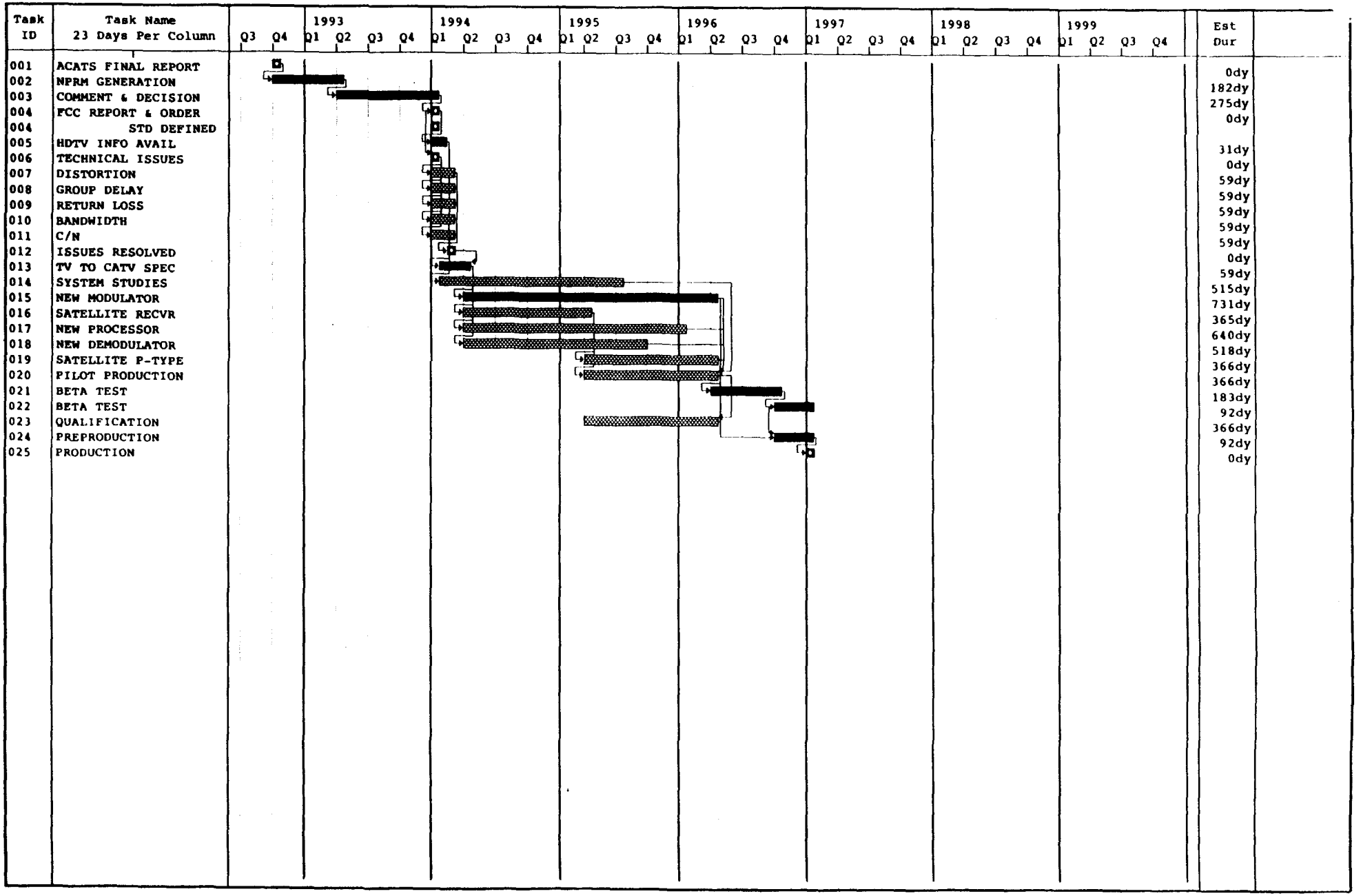
Task Outline
01-01-92 12:26a

Project: HEADEND.PRJ
Revision: 28

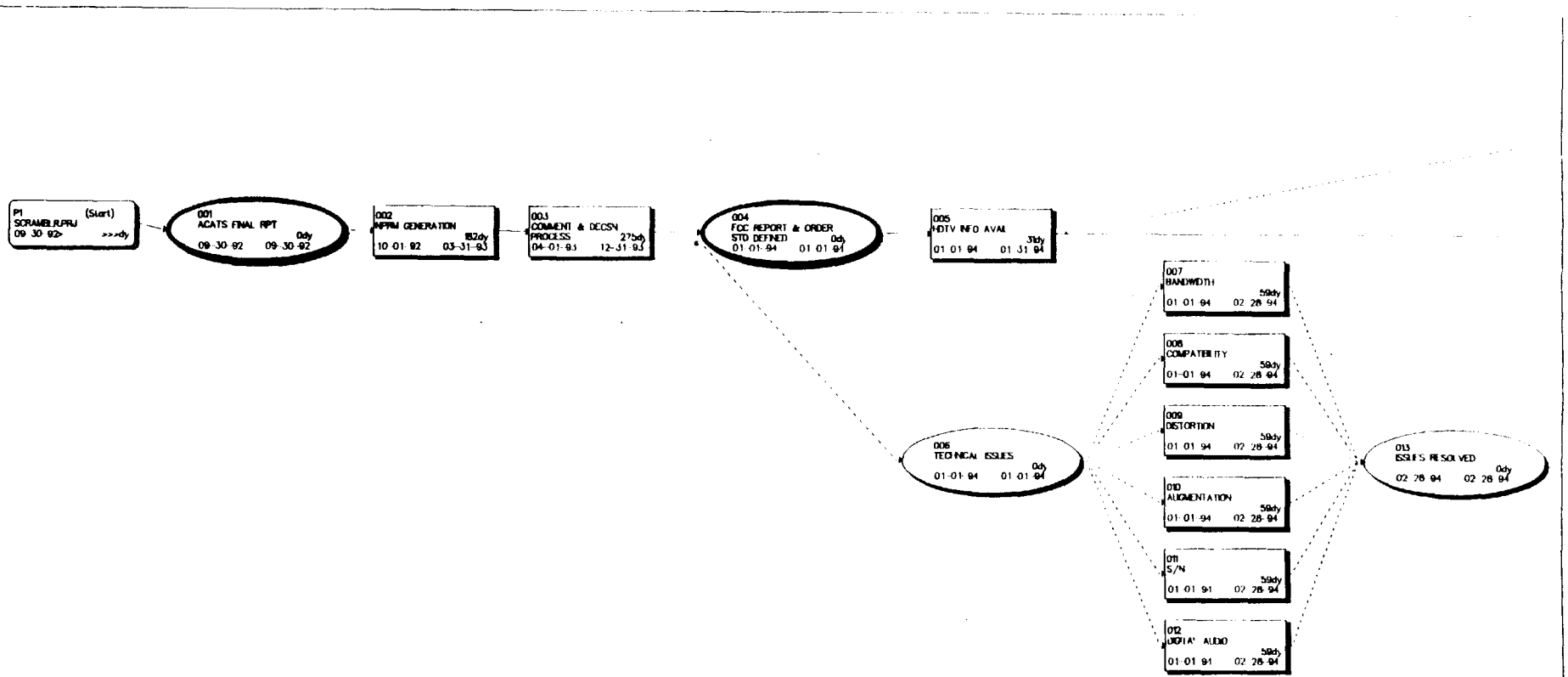
CABLE: HDTV HEADEND EQUIPMENT SCHEDULE



PERT Chart
01-02-92 4:18p

CABLE: HDTV SCRAMBLER DEVELOPMENT SCHEDULE

Project: SCRAMBLR(PRJ)
Revision: 19



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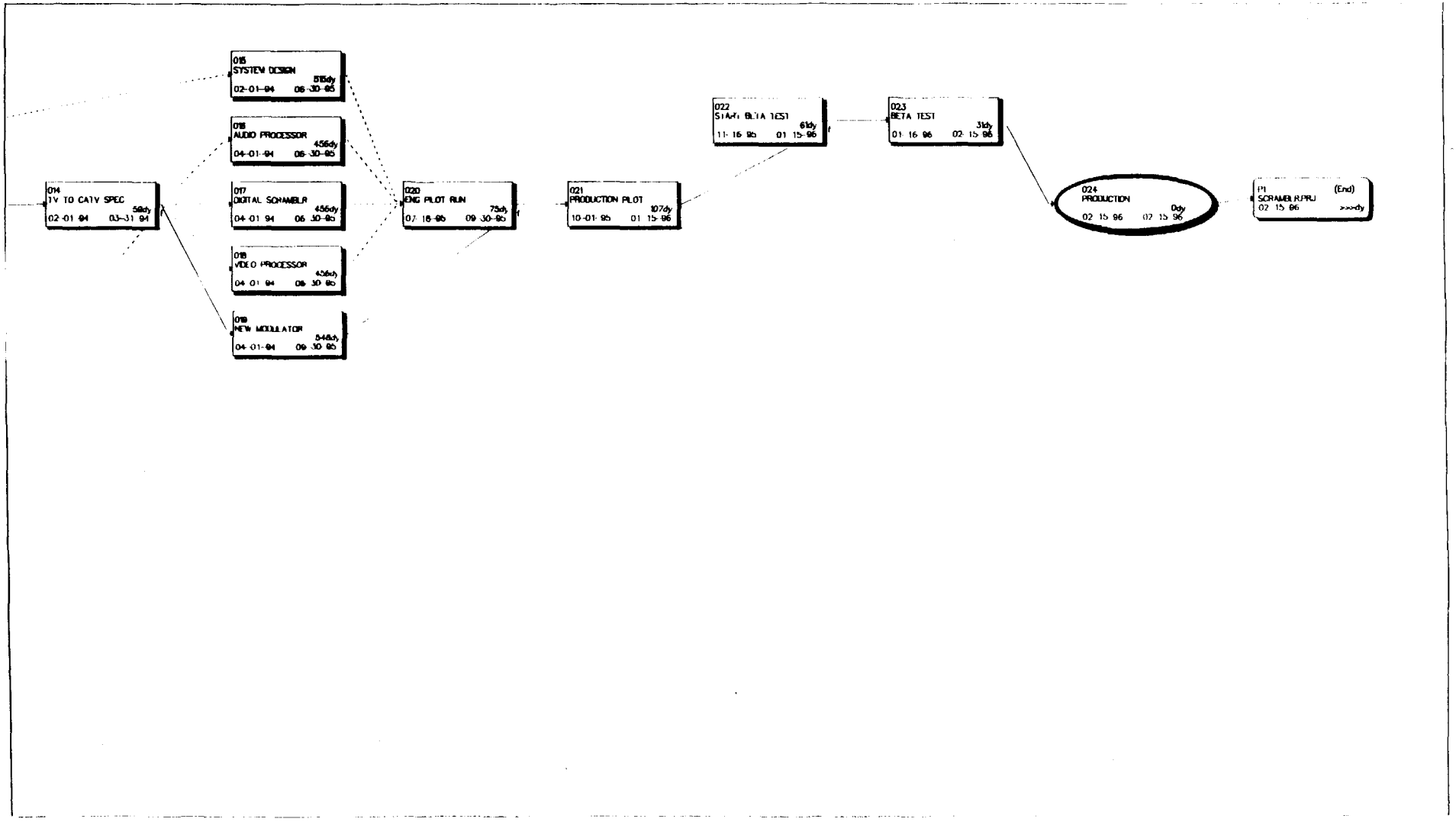
CABLE: HDTV SCRAMBLER DEVELOPMENT SCHEDULE



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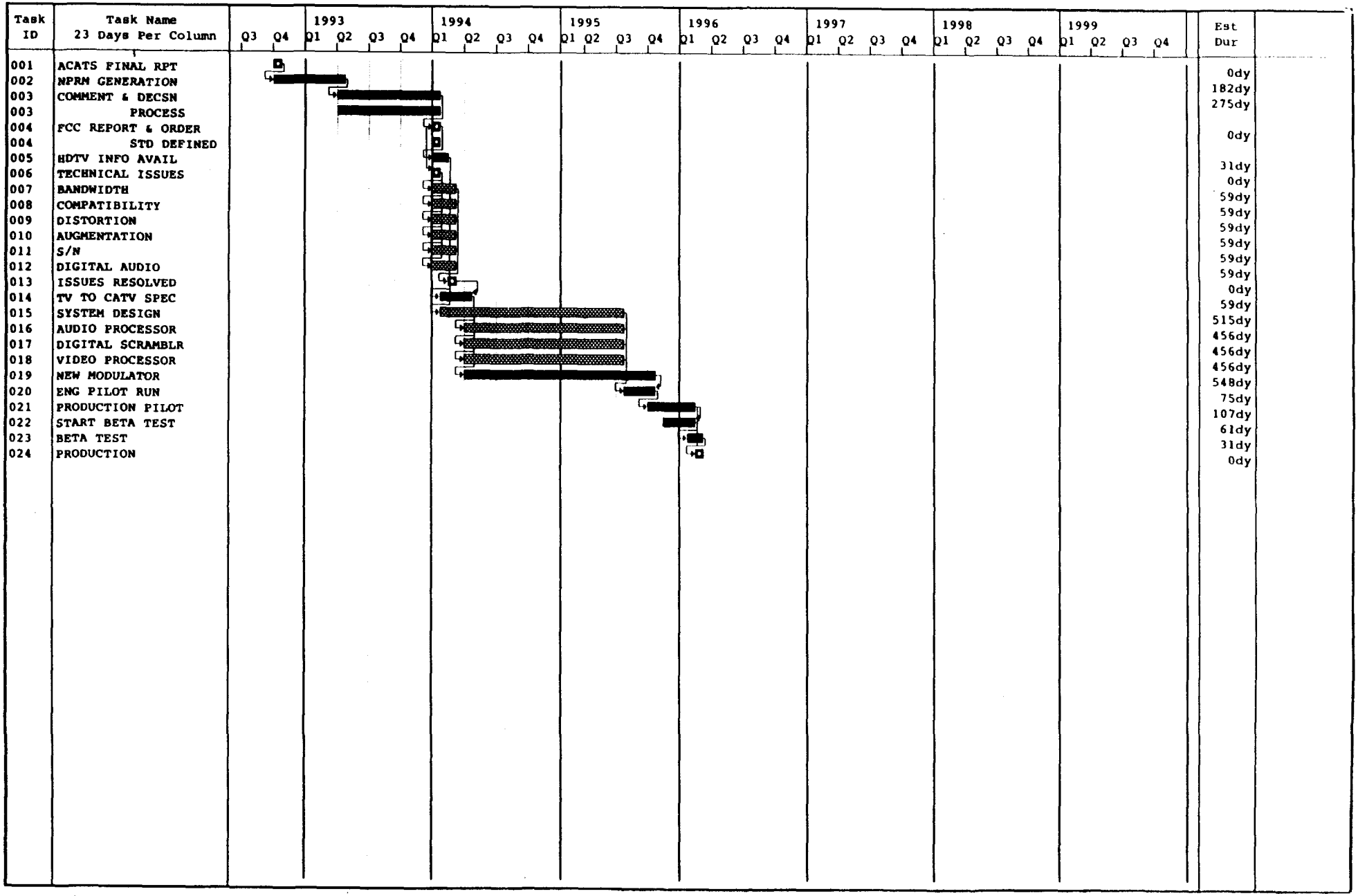
Task Outline
01-01-92 12:34a

Project: SCRAMBLR PRJ
Revision: 19

CABLE: HDTV SCRAMBLER DEVELOPMENT SCHEDULE



IS/WP-2 PERT Chart

Supporting List of Assumptions

Common Carrier: Video Distribution w/SONET at OC-12/24

General Assumptions

1. FCC Report & Order on Advanced Television Service is issued in the 1993 timeframe.

2. Requirements for 360 Mb/s and 1.2 Gb/s ATV transport will be satisfied by SONET OC-12 and OC-24 level services.

3. Sufficient demand for SONET OC-12 and OC-24 level services will materialize.

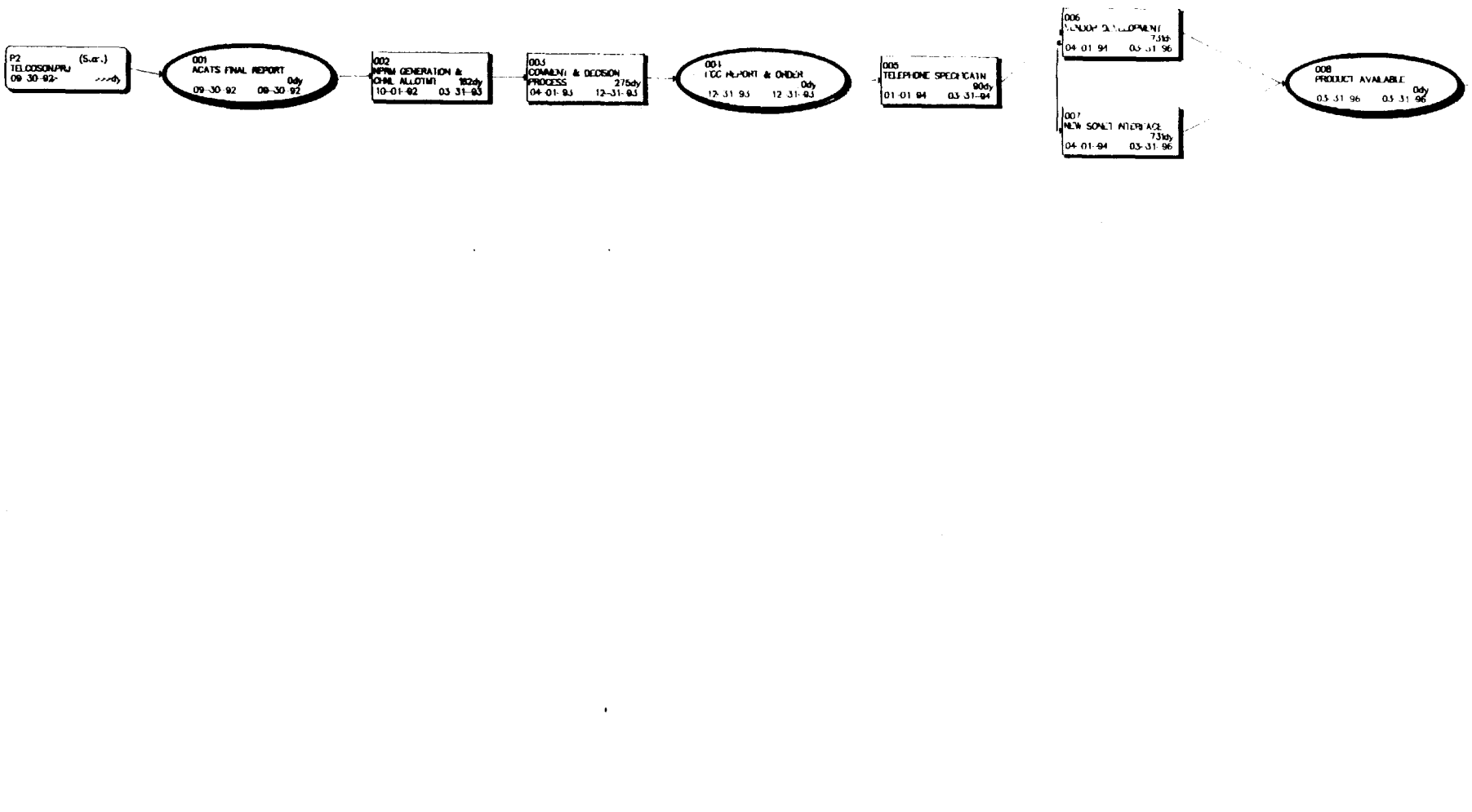
4. ATV Customer Premises Equipment and production equipment will be designed to operate/interface at the SONET rates as required.

5. Time frames associated with the vendor development of SONET equipment will coincide with normal product development time intervals.

PERT Chart
01-02-92 5:15p

COMMON CARRIER VIDEO DISTRIBUTION W/SONET AT OC-12/24

Project: TELCOSON/PRJ
Revision: 0



PERT Chart
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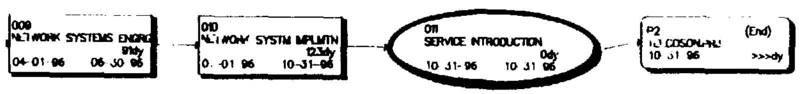
Page 2 (2, 1)
Project TELCOSONPHJ
Revision 0

COMMON CARRIER VIDEO DISTRIBUTION W/SONET AT OC-12/24



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Task Outline
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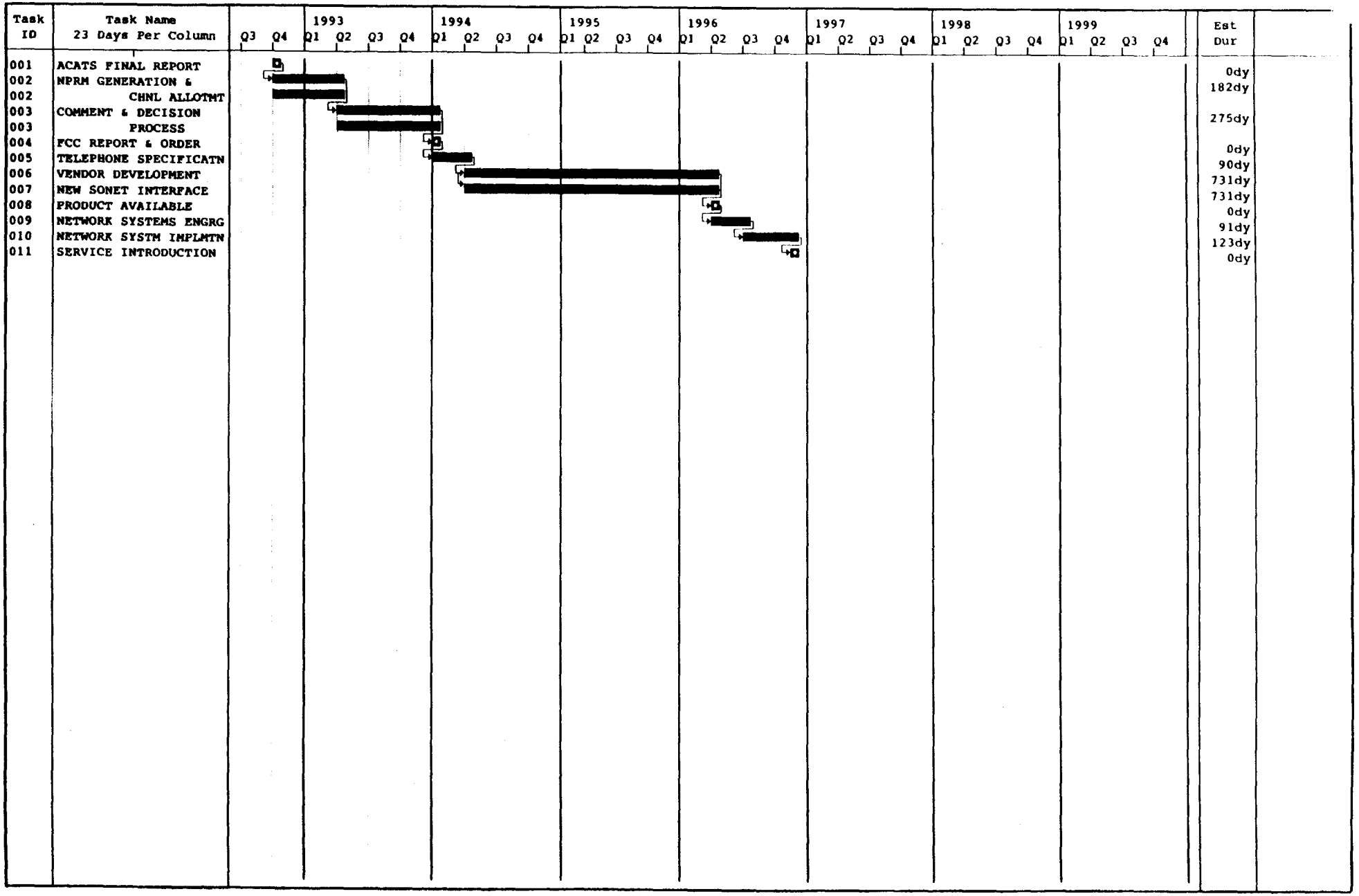
Project: TELCOSON.PRJ
Revision: 0

COMMON CARRIER: VIDEO DISTRIBUTION W/SONET AT OC-12/24



Unassigned Interrupted Noncritical Critical Milestone

IS/WP-2 PERT Chart

Supporting List of Assumptions

Satellite Distribution: Terminal Equipment Development

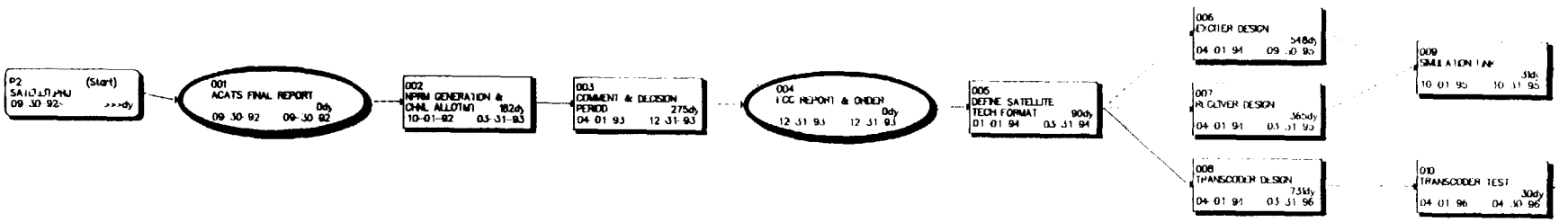
General Assumptions

1. Existing transponders adequate to carry ATV signals.
2. Only terminal equipment (encoders, exciters, receivers) requires replacement.
3. No resource limitations on IC development.

PERT Chart
01-02-92 3:31p

SATELLITE DISTRIBUTION TERMINAL EQUIPMENT DEVELOPMENT

Project SATELITE.PRJ
Revision: 1



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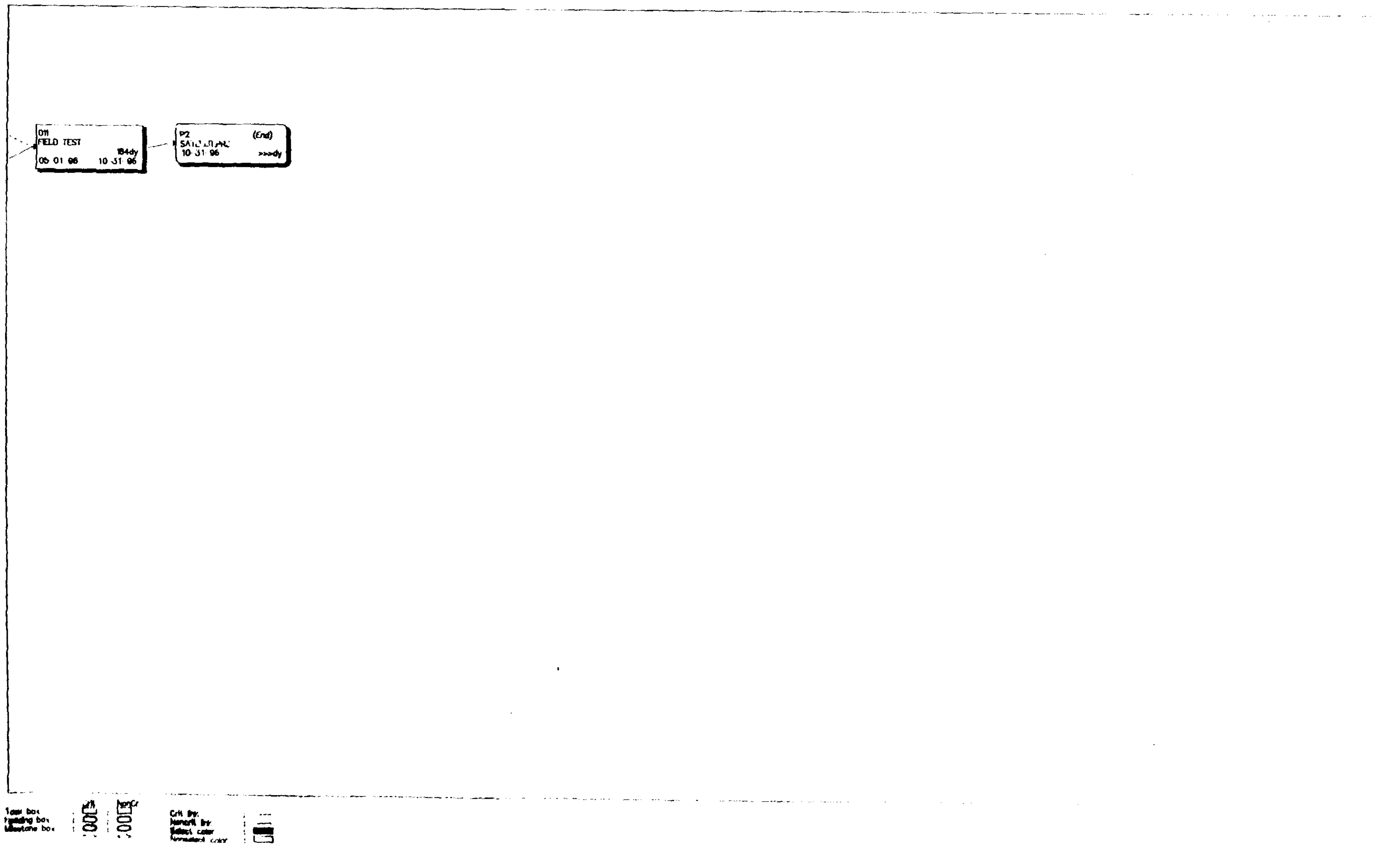
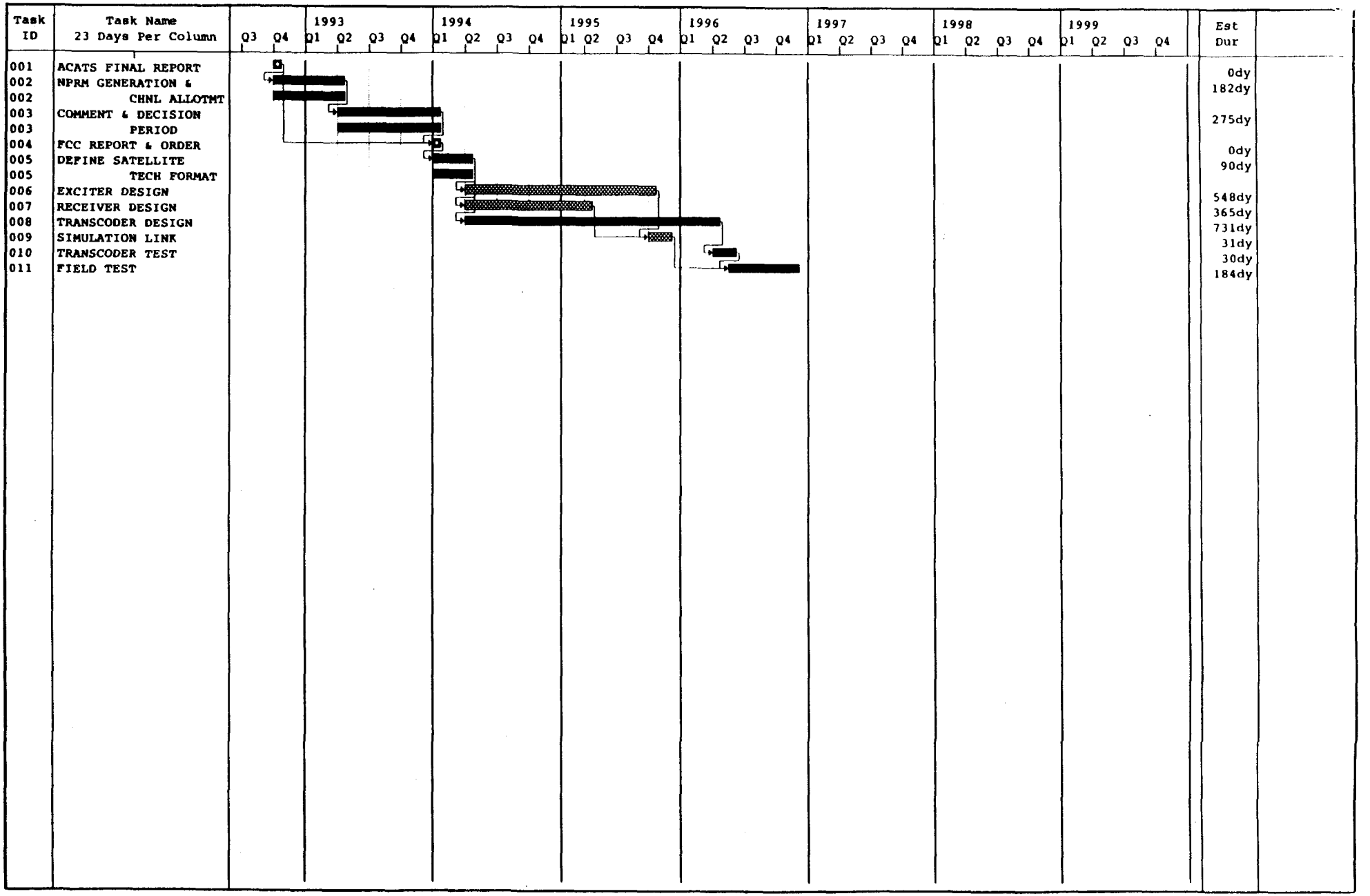
SATELLITE DISTRIBUTION TERMINAL EQUIPMENT DEVELOPMENT



Task Outline
01-01-92 1:23a

Project: SATELLIT.PRJ
Revision: 1

SATELLITE DISTRIBUTION: TERMINAL EQUIPMENT DEVELOPMENT



IS/WP-2 PERT Chart

Supporting List of Assumptions

Consumer Products: TV Receiver Development/Production

General Assumptions

1. PERT chart is based on general market availability of HDTV product.
2. A Proponent may have a potential 9-month advantage if its system is selected.
3. No resource limitations on IC development.
4. High resolution displays will be available and are not included in this process.
5. ICs are ASICs and include both standard cell custom and gate array types.

Specific Assumptions

Task 2 - NPRM Generation

1. Sufficient public domain information will be available at the time of the NPRM to permit meaningful work.

Task 9 - Initial Emulator Development

1. IC emulators are required for the more complex ASICs.

Task 12 - IC Design Simulation

1. IC design simulations can begin three months prior to emulator completion.

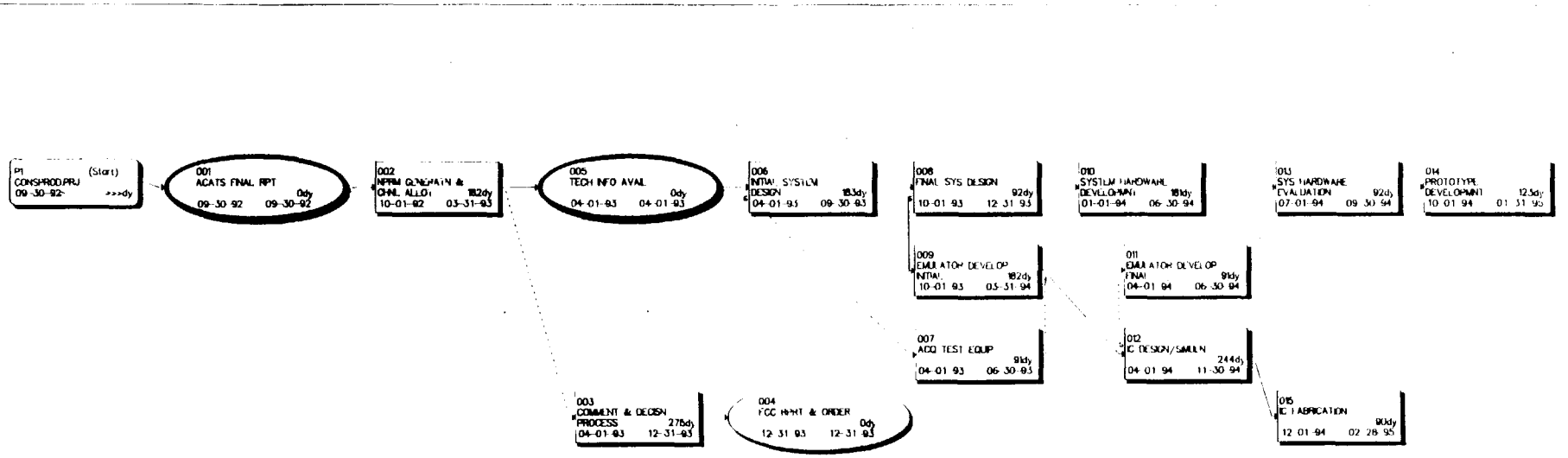
Task 15 - IC Fabrication

1. IC fabrication will not begin until FCC final Report and Order has been released.

Tasks 18 & 19 - Design Stages I & II

1. IC development assumes one major (Task 18) and one minor (Task 19) iteration of the layout.

CONSUMER PRODUCTS: TV RECEIVER DEVELOPMENT SCHEDULE



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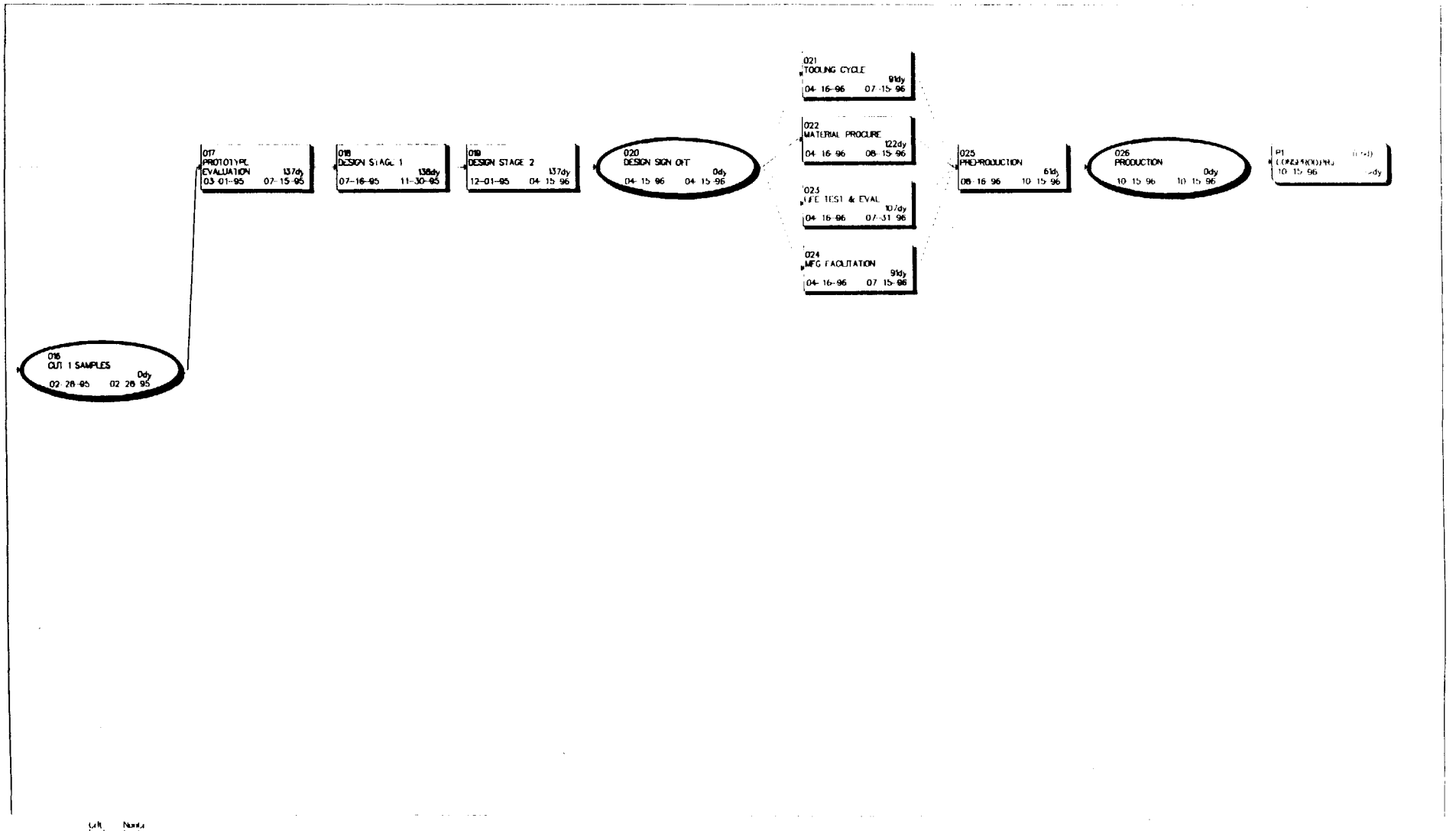
CONSUMER PRODUCTS: TV RECEIVER DEVELOPMENT SCHEDULE



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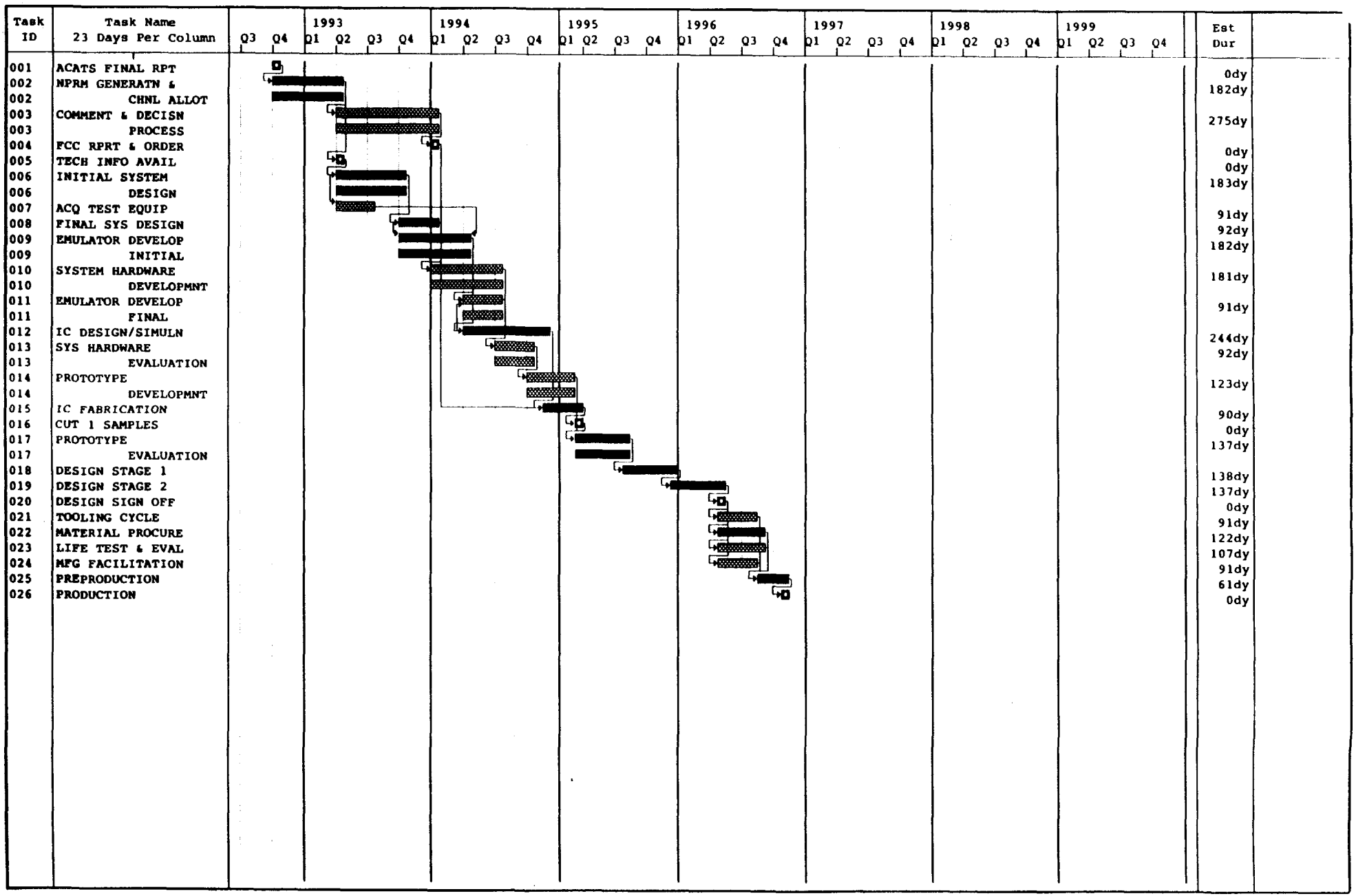
Project: CONSPROD.PRJ
Revision: 6

CONSUMER PRODUCTS: TV RECEIVER DEVELOPMENT SCHEDULE



Implementation Subcommittee Working Party 2
on Transition Scenarios

Preliminary List of Questions for Proponents

The following questions are for your consideration and response at the meeting of IS/WP-2 to be scheduled in March, 1992. They are divided into a general category and categories corresponding to the industry segments represented in the PERT and Gantt charts being supplied to you simultaneously with this list. The questions will be explained at the meeting of January 13, 1992.

General

1. Is extensibility built into your system? When can it be implemented? Under what prescribed conditions?

2. How long following an Advisory Committee recommendation of your system will the detailed technical information necessary for the setting of standards and for the design and manufacture of both professional and consumer products be available?

3. What provisions have you made for communicating information sufficient for design and manufacture to manufacturers of consumer and professional equipment? Do you have a program planned for providing direct support to help get such organizations up and running with your system?

4. What arrangements have you made with integrated circuit vendors for supplying chips for your system? What availability of ICs do you anticipate for other manufacturers?

5. What is your expectation for the time of introduction of your system? Do you have any suggestions for possible head starts in any areas to shorten the time to introduction?

Broadcast

1. What are the transmission power levels (ERP) required for the system for coverage equal to NTSC? Please specify for both low and high VHF and for UHF. Are there any power variations across the UHF band? Are any special transmitter or antenna characteristics required?

2. What signal form is anticipated for use in distribution to Network affiliates and/or to cable headends? Have you anticipated both satellite and terrestrial common carrier delivery? Have these been tested experimentally?

3. What forms of further production are possible using the signal delivered to affiliates and headends?

   a) cut into the signal
   b) key into the signal
   c) full image manipulation

4. If the signal delivered to affiliates/headends must be fully decoded for further production, in the forms listed in 3 above, how many times can this be done with acceptable quality in the resulting picture? Have you tested this experimentally?

5. Is it possible to carry the ATV signals and NTSC signals together on a single microwave channel, as for Studio-to-Transmitter Links (STLs) and similar circuits? If so, what is the required bandwidth?

6. What signal form is anticipated for contribution circuits for production? Are different quality levels provided? Have you considered both satellite and terrestrial common carrier delivery? Assuming the production processes listed in 3 above, how many times through the signal form can an image go while retaining acceptable production quality in the resulting picture? Have you tested this experimentally?

Cable

1. What provisions are made for conditional access without decoding the signal? Is partial decoding required? How complex is the equipment required to accomplish these functions?

2. See questions 2, 3, 4, & 5 under Broadcast above.

Common Carrier

1. What form of signal do you propose for transmission over terrestrial common carrier links?

2. Are the SONET bit rates assumed the correct choices?

3. What bit error rates does your proposed distribution format require of the transport system? Your production contribution format?

Consumer

1. What is required in a consumer VCR for the system? When will such a VCR be available? Is new technology required first? What format is to be recorded? Are any current VCR features not possible with this format? Have you verified this experimentally?

Satellite

1. Is it possible to carry the ATV signal and an NTSC signal on the same transponder? If so, at what bandwidth? What other multiples are possible with your system?

FCC ADVISORY COMMITTEE ON ADVANCED TELEVISION SERVICE
IMPLEMENTATION SUBCOMMITTEE
WORKING PARTY 2 ON TRANSITION SCENARIOS (IS/WP-2)

January 13, 1992
10:00 am - 6:00 pm (Lunch included)
10:00 am - 3:00 pm - w/Proponents
Public Broadcasting Service
6th Floor Board Room
1320 Braddock Place
Alexandria, VA

AGENDA

1. Adoption of Agenda

Presentation to Proponents

2. Introduction (M. Weiss) (20 min)
3. Broadcast Review (M. Weiss) (60 min)
4. Cable Review (R. Pience) (30 min)
5. Common Carrier Review (P. Donovan) (15 min)
6. Satellite Review (L. Cochran) (15 min)
7. Consumer Electronics Review (15 min)
   (L. Cochran, C. Heuer)
8. Questions for Proponents (30 min)
9. Questions from Proponents (30 min)
10. Follow Up/Summary (30 min)

IS/WP-2 Business

11. Approval of 12/17/91 Minutes
12. Review of Action Items from 12/17/91 Meeting
13. Preparation of Fifth Interim Report
14. New Business
15. Conclusions & Action Items
16. Next Meeting